



Survey Study

Health awareness and popularity of alternative medicines among people of Jamnagar town: A cross - sectional study

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Abstract

By 2020, it is predicted that non-communicable diseases will be causing seven out of every 10 deaths in developing countries. Indian traditional medicine system with the concept of personalized therapy in Ayurveda has the potential to offer remedies to these challenging health issues. Integration of Ayurveda, Siddha and Unani, the three Indian systems of medicine (ISM), along with homoeopathic and allopathic systems of medicine to ensure health for all citizens across the country is the new *Mantra* of the Union health ministry. To tap the potentials of our indigenous medicine systems and other popular systems of medicine it is important to assess the awareness among people and make efforts to popularize them. The present study was therefore carried out to assess the awareness among 200 respondents with the help of a multiple choice questionnaire by the interview method. Convenience sampling technique was employed. The awareness about lifestyle, diet, oil consumption needs more vigorous attention as observed in this study. The most popular choice was found to be groundnut oil. Around 4% of the participants used more than one medium of cooking. Forty-two percent of the participants observed fast regularly. Twenty-three percent of the participants did not include any form of exercise in their daily routine while walking was the most popular form of exercise performed by 43%. By using multiple comparisons it was observed that the difference between i) Allopathy- Homeopathy, ii) Allopathy – Ayurvedic and iii) Ayurvedic- Homeopathy as 15.5263, 7.1053 and 8.4211, respectively, are significant at $\alpha = 0.05$. A larger sample size encompassing various economic strata could be a better index of popularity of various alternative medicine systems existing in different sections of our society.

Key words: Alternative and complementary medicine, health awareness, Indian system of medicine, popularity of Ayurveda

Introduction

Noncommunicable diseases (NCDs) are the leading causes of death and disability worldwide. Disease rates from these conditions are accelerating globally, advancing across regions and social classes.^[1-4] By the dawn of the third millennium, NCDs are sweeping the entire globe, with an increasing trend in developing countries where, the transition imposes more constraints to deal with the double burden of infective and noninfective diseases in a poor environment characterized by ill-health systems. By 2020, it is predicted that these diseases will be causing seven out of every 10 deaths in developing countries.^[5] Four of the most prominent

NCDs – cardiovascular disease, cancer, chronic obstructive pulmonary disease and diabetes – are linked by common preventable risk factors associated to lifestyle which include tobacco use, smoking, alcoholism, marked increase in intake of energy-rich foods, low physical activity, heightened level of psychosocial stress, etc., promoting hypercholesterolemia and hypertriglyceridemia.^[6-12]

In the recent past there has been a growing interest in traditional, complementary and alternative medicine (TCAM) and its relevance in public health both in developed and developing countries. Diversity, flexibility, easy accessibility, broad continuing acceptance in developing countries and increasing popularity in developed countries, relative low cost, low levels of technological input, relative low side effects and growing economic importance are some of the positive features of traditional medicine (WHO 2002).^[13] It is well established by now that the approach of Western allopathic medicine is excellent in handling acute

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medical crises whereas Ayurveda has successfully demonstrated an ability to manage chronic disorders that Western medicine has been unable to. Ayurveda can form the basis for a new, improved approach to public health, including health promotion, and affordable primary care functions, especially for communicable and chronic diseases as it is not just a system of Indian medicine but it is a way of life.^[14,15] To tap the potentials of our indigenous medicine systems it is important to assess the awareness among people and make efforts to popularize them in order to combat various communicable and NCDs.

The promotion of health and prevention of diseases are stressed by personalized approach (*Prakriti*-based medicine) which is the forte of Indian systems of medicine (ISM). The concept of personalized therapy in Ayurveda has the potential to offer remedies to the challenging health issues like adverse drug reactions, drug withdrawals, economic disparities and chronic disease management to name among few. An integrative global approach could do wonders to health sciences benefiting a broad spectrum of patients.^[14] The Indian system of medicine is of great antiquity. It is the culmination of Indian thought of medicine which represents a way of healthy living valued with a long and unique cultural history.^[11] The Indian sages were aware of chronicity and complications of the diseases and they had classified the diseases according to the prognosis in four categories.

- *Saadhya*: the disease which can be cured easily.
- *Krichha Saadhya*: the disease which can be cured after hard efforts and with the help of *Panchakarma* and other procedures.
- *Yaapya*: The diseases which cannot be cured, but *can be stabilized* with the help of medicines and *Panchakarma* or surgery.
- *Asaadhya*: the disease which cannot be cured.

Certain health conditions that are widespread and on the rise in India can be addressed by the integration of Indian system of medicine with modern medicine. National programs targeting public awareness, education and improved structural facilities to facilitate healthy lifestyle are the answers to the economic and health care burden of these disorders. Integration of Ayurveda, Siddha, Unani and homoeopathic, the three ISM, with Allopathic system to ensure health for all citizens across the country is the new *Mantra* of the Union health ministry. Ayurveda, Homoeopathy, Siddha, Unani, Yoga and Naturopathy offer a wide range of preventive and curative treatments that are both cost effective and efficacious. Therefore, there is a need for ending the long neglect of these systems in our health care strategy. The main objective behind such integration is primarily to bring the focus on prevention rather than cure according to the Department of AYUSH, under the Ministry of Health and Family Welfare.^[16]

The current study was conducted keeping in mind the present scenario of globalization, shift in lifestyle patterns and increase of healthcare burden in India due to changing economics. The present study was carried out to assess the awareness about lifestyle and popularity of Ayurveda among people of Jamnagar and the overall preference of medicine system in case of common acute ailments and chronic health conditions.

Materials and Methods

A questionnaire was drafted in accordance with above said

objectives in mind. The questionnaire used in the study followed the model given by Jwala *et al.*, (2009).^[17] The method of asking questions was the interview method. It was the multiple choice questionnaire. Data was collected in pre-tested structured questionnaire. Prior to distribution of questionnaire a pilot study was conducted. The method of sampling was 'Convenience Sampling (nonprobability sampling technique)'. The inclusion criteria consisted of the residents of Jamnagar of both gender. A written informed consent was obtained from each and every participant and anonymity of participant was maintained throughout the study. The objectives were duly explained to each and every participant and doubts, if any, were clarified. Questions and their responses are being presented as bar charts, pie charts and tables.

Statistical analysis

Statistical tests were performed as described in the text using commercial software package SPSS version 16. The multiple comparison test discussed here is Tukey's Honestly significant difference (HSD) test for designs with equal sample sizes.

Result and Discussion

Total number of participants in the study was 200 of which 80 were males and 120 were females falling in the age range of 17-70 years. The type of study was cross-sectional. Forty-two percent of the participants observed fast regularly as shown in Figure 1. However, most of them observed fasting due to religious and cultural beliefs. Among the many stated forms of exercise walking was the most popular form done by 43%. Twenty-two percent of the participants did not include any form of exercise in their daily routine as shown in Figure 2. The participants also were found to have very little knowledge about the type of cooking medium which would be healthy. The most popular choice was found to be groundnut oil shown in Figure 3. Around 4% of the participants used more than one medium of cooking. Very few participants had awareness related to benefits of ω -3 fatty acids. Eighty-two percent of the people irrespective of their genders were found to add raw salt to food during meals and consume pickles and *Papad* which have high content of salt as a routine food habit.

Multiple comparisons using Tukey Honestly significance difference (HSD) was calculated. Comparing these to the value of HSD = 4.673, it was observed that the difference

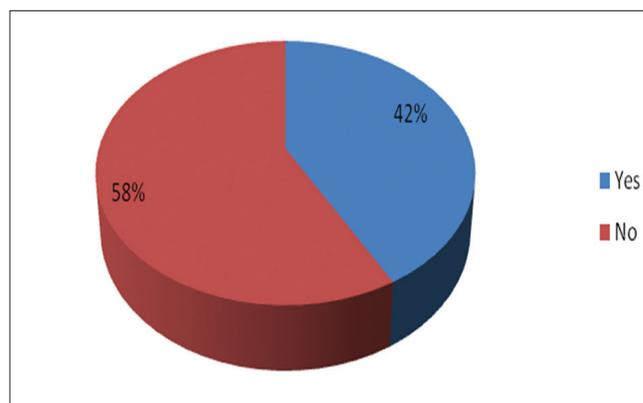


Figure 1: Fasting as regular practice (%)

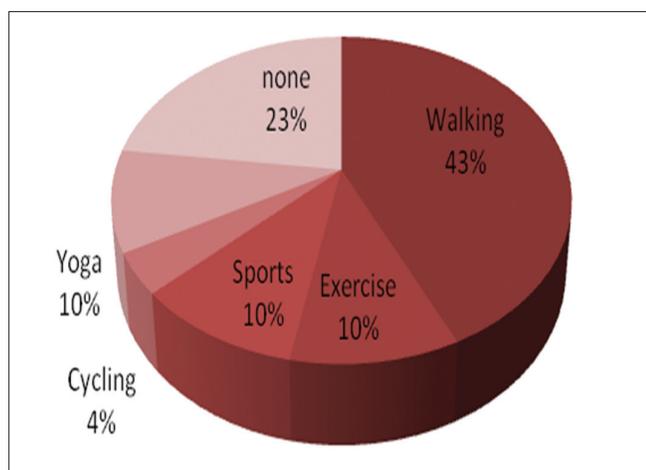


Figure 2: Form of exercise as a part of daily routine (%)

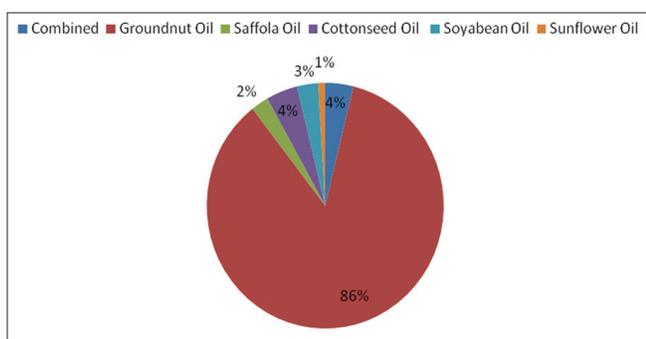


Figure 3: Choice of cooking medium in sample population

between i) Allopathy- Homeopathy, ii) Allopathy – Ayurvedic and iii) Ayurvedic- Homeopathy as 15.5263, 7.1053 and 8.4211, respectively, are significant at $\alpha = 0.05$. As expected allopathy was found to be more preferred and homeopathy the least preferred choice of treatment among the three. However, it was observed that the difference among the three systems of medicine is minimal as shown in Tables 1 and 2. Figure 4 and 5 show the preferred system of medicine of the participants in various diseased conditions. Home remedy was the first choice in many health conditions as shown in Figure 6. Most participants were found to use traditional wisdom as therapy before consulting a professional health practitioner. Table 3 gives a list of commonly used home remedies and percentage of awareness about their use among participants.

For various acute health conditions like sour throat, cold and cough, gas, toothache and hair fall Ayurvedic treatment was the preferred choice. However, in chronic health conditions such as obesity, Ayurvedic treatment was the popular choice of treatment. The participants were found to be aware about the non-drug modalities of Ayurved as well. Thirty seven percent of the participants were aware and had used at least one of the many stated non-drug Ayurvedic modalities in some stage of their life as shown in Figure 7. The most commonly stated non-drug Ayurvedic modalities by participants are as under:

1. Yoga
2. Panchakarma (primary purification and detoxification treatment)

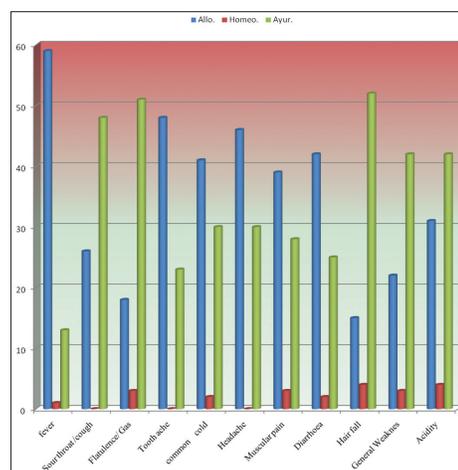


Figure 4: Preference of medicine system in various acute conditions

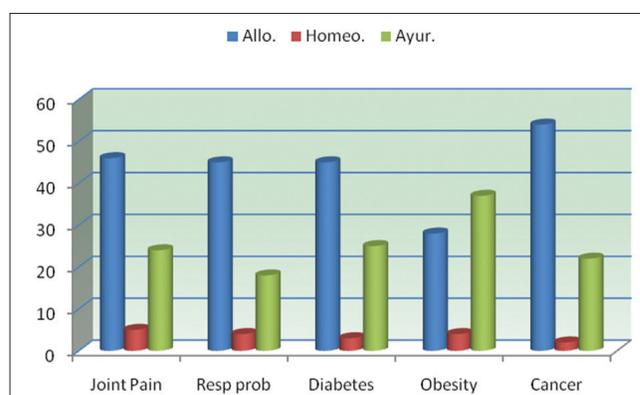


Figure 5: Preference of medicine system in various chronic conditions

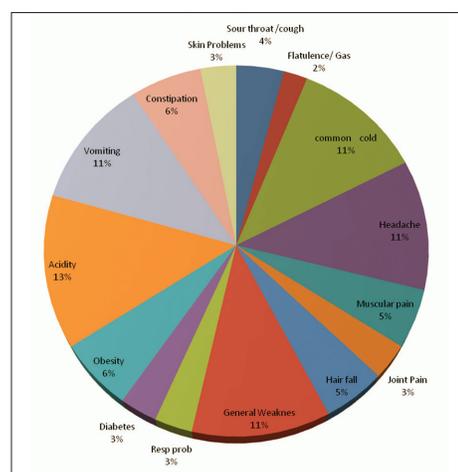


Figure 6: Home remedy as the first choice of treatment in various health conditions

3. Nasya (nose cleaning)
4. Pranayama (breath control exercises)
5. Jalaukaupachaar (leech therapy)
6. Vaman (emesis therapy)
7. Virechan (purgation therapy)
8. Fasting and dietary modifications based on Prakriti.

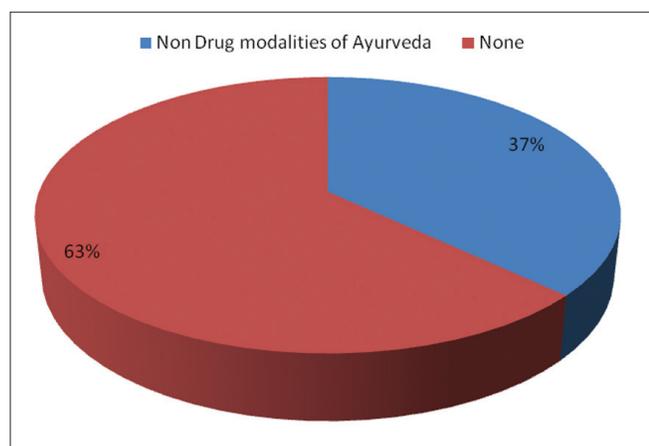
Table 1: multiple comparisons using tukey's honestly significant difference among three systems of medicine under study

(I)	(J)	Mean difference (I-J)	Std. error	Sig.	95% Confidence Interval	
					Lower bound	Upper bound
Allopathy	Homeopathy	15.5263	0.70132	0.000	13.8362	17.2165
	Ayurvedic	7.1053	0.70132	0.000	5.4151	8.7954
Homeopathy	Allopathy	-15.5263	0.70132	0.000	-17.2165	-13.8362
	Ayurvedic	-8.4211	0.70132	0.000	-10.1112	-6.7309
Ayurvedic	Allopathy	-7.1053	0.70132	0.000	-8.7954	-5.4151
	Homeopathy	8.4211	0.70132	0.000	6.7309	10.1112

Table 2: Level of significance among three systems of medicine under study

Particulars	N	Subset		
		1	2	3
Homeopathy	19	25.3158		
Ayurvedic	19		33.7368	
Allopathy	19			40.8421
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed based on observed means.
The error term is Mean Square (Error) = 4.673

**Figure 7: Use of non-drug ayurvedic modalities (%)**

9. Massage

10. *Basti* (enema or colonic irrigation)

Several reports exist on the manpower, number of colleges, hospitals and dispensaries, specializations, etc., in Ayurveda, Siddha, etc. As per the provisional state-wise distribution provided by the Department of ISM and H, there are more practitioners of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH) than of allopathy in India. This widespread resource needs to be strengthened, retrained and effectively utilized in the national health care delivery system as reported by Dr. Ashok Vaidya.^[18]

Life style-related problems have brought with them an increased risk of developing chronic non communicable diseases such as cardiovascular diseases, cancer, diabetes and mental disorders. Patients are now looking for simpler therapies for improving the quality of life. This has led to resurgence of interest in ISM especially Ayurveda and other existing medicine systems in India and globally. In India, there are

Table 3: General awareness about commonly used home remedies among participants

Name of home remedy	Commonly stated uses	Yes (%)	No (%)
<i>Shikakai</i>	Hair	85	15
<i>Aritha</i>	Hair	80	20
<i>Triphala</i>	Constipation	40	60
<i>Amla</i>	Skin, hair tonic, immunity enhancer, antioxidant	70	30
<i>Neem</i>	Blood purifier, diabetes, skin	65	35
<i>Tulsi</i>	Cold, cough	85	15
<i>Brahmi</i>	Brain tonic	60	40
<i>Ardusi</i>	Cold, cough	30	70
<i>Aloe vera</i>	Skin, cosmetic	50	50
<i>Harde</i>	Indigestion	50	50
Fennel	Cool, digestive	20	80
Cumin	Carminative	40	65
<i>Heeng</i>	Carminative	65	35
Ginger	Carminative, cold, cough, antioxidant	85	15
<i>Ajwain</i>	Carminative	72	28
Isabgol	Constipation	50	50
<i>Bael</i>	Diabetes	30	70
<i>Karela</i>	Diabetes, blood purifier	28	72
Clove	Cough, soothing agent, flavoring agent	35	65
<i>Heenga</i>	Carminative	45	55
Turmeric	Antiseptic, skin problems	85	15
<i>Dalchini</i>	Carminative	15	85
Honey	Weight reducing, cough, etc.	18	82
<i>Chhoti-elaichi</i>	Condiment	20	80

about 20 well-recognized manufactures of herbal drugs and 140 medium or small-scale manufactures. In addition, thousands of *Vaidyas* have their own miniature manufacturing facilities. About 1200 licensed small manufactures are there in India currently. The estimated current annual production of herbal drugs is around Rs.100 crores as compared to the production allopathic pharmaceuticals, which is around Rs. 800 crores.^[15] More efforts should be directed towards increasing awareness and facilities on various medicine systems in India and students should be encouraged to take up these as profession. Multispeciality clinics with experts from modern and other systems of medicines could be the future of health practices

wherein experts from alternate, traditional and modern systems (ISM, Homeopathy and Allopathy) come together to deal with various aspects of disease and its management.

Conclusions

The awareness about lifestyle: exercise, diet, oil consumption, PUFA and salt intake need more vigorous attention as observed in this study. In various health conditions home remedy and Ayurvedic treatment has emerged to be the first choice though in chronic conditions allopathic medicine system is the preferred choice of treatment. In the acute health conditions however, along with allopathy, ayurvedic treatment has scored an equivalent preference in the current study. The participants are well-aware of non-drug modalities of Ayurveda and their effective impact on life style modification measures as well as management of chronic diseases.

Many of the participants were found to use more than one system of medicine for disease prevention, cure and a better life. Studies need to be carried out to explore this aspect. A larger sample size encompassing various economic strata could be a better index of popularity of various alternative medicine systems existing in different sections of our society.

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हिन्दी सारांश

जामनगर के नागरिकों में स्वास्थ्य सम्बन्धी जागरूकता एवं वैकल्पिक चिकित्सा पद्धतियों की लोकप्रियता - एक सर्वेक्षण

बिजया चटर्जी, प्रशान्त चटर्जी बिस्वास, जिगिशा पंचोली

सम्पूर्ण विश्व में असंक्रामक रोग, अक्षमता तथा मृत्यु का मुख्य कारण बन चुके हैं। यह अनुमान लगाया जाता है कि सन् २०२० तक दस में से सात व्यक्तियों की समय से पूर्व मृत्यु का कारण, असंक्रामक रोग होंगे। भारतीय परम्परागत चिकित्सा प्रणाली में व्यक्तिपरक चिकित्सा के प्रयोग से इस प्रकार की चुनौतिपूर्ण स्वास्थ्य सम्बन्धी समस्याओं का निराकरण किया जा सकता है। आयुर्वेद, सिद्ध और यूनानी, भारतीय चिकित्सा प्रणालियों और होम्योपैथी तथा एलोपैथी के समन्वय द्वारा देश के प्रत्येक नागरिक को अच्छा स्वास्थ्य प्रदान कराया जा सकता है। इन समस्त चिकित्सा प्रणालियों की क्षमता को उजागर करने के लिए आवश्यक है कि इनके प्रति जागरूकता एवं लोकप्रियता को बढ़ाने के लिए कार्य किए जाएं। इस अध्ययन से यह निष्कर्ष निकाला जा सकता है कि जामनगर के नागरिकों में जीवनशैली, आहार एवं उपयुक्त खाद्य तैल के प्रयोग हेतु जागरूकता लाने की आवश्यकता है। स्वास्थ्य सम्बन्धी विषमताओं को दूर करने हेतु आयुर्वेदिक उपचार तथा घरेलू चिकित्सा को प्राथमिकता दी गई है।